

NAME OF THE COURSE	PROJECTS' PLANNING						
Code	ECS405	Year of study	1				
Course teacher	Ivan Matic, PhD associate professor Ljiljana Najev Čačija, PhD assistant professor	Credits (ECTS)	6				
Associate teachers		Type of instruction (number of hours)	L	S	E	F	
			26		26		
Status of the course	Mandatory	Percentage of application of e-learning	25%				
COURSE DESCRIPTION							
Course objectives	To provide students with practice applicable knowledge from the domain of detailed planning of commercial projects.						
Course enrolment requirements and entry competences required for the course	Entry requirements are defined by the Statute of the Faculty of Economics, business and tourism and Study Regulations. Competencies – basic management knowledge – especially planning function, knowledge from basic project management, PC/MS Office operating skills.						
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	<p>Course learning outcome:</p> <ol style="list-style-type: none"> <li>To independently design and execute, by application of appropriate tools and methods, detailed planning of commercial projects (Level 7)</li> </ol> <p>Specific learning outcomes:</p> <ol style="list-style-type: none"> <li>To design the process and determine the costs and traps of projects' planning (Level 7).</li> <li>To analyse and evaluate available information about project with the aim of developing project plan (Level 6/7).</li> <li>To develop various aspects of project plan through combined application of basic (line) planning methods (Level 6/7).</li> <li>To develop various aspects of project plan through combined application of complex (network) planning methods (Level 6/7).</li> <li>To design optimization of time, costs and other resources allocated to the project through application of appropriate methods and tools (Level 6/7).</li> </ol>						
Course content broken down in detail by weekly class schedule (syllabus)			Lectures		Exercises / Seminars		
		Topic	Hrs	Topic	Hrs		
	1.	Introduction to projects' planning/ Process, costs and basic traps of projects' planning	2	Importance of projects' planning (case study)/ Initial analysis of projects' planning cost and basic traps	2		
	2.	Procedure of initial project's plan preparation – WBS and interdependence matrix	2	Practical assignment: WBS and interdependence matrix development Results analysis - Moodle	2		
3.	Role of Gantt charts in projects' planning	2	Practical assignment: Gantt charts' development for projects' planning purpose Results analysis – Moodle	2			

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			<i>Assignment 1 submission - WBS and interdependence matrix development</i>	
4.	Critical path method – critical/non-critical activities, time reserves	2	Practical assignment: Critical path method application/calculation Results analysis - Moodle	2
5.	Role of probability in projects' planning	2	Practical assignment: Analysis of the role of probability in projects' planning Results analysis - Moodle	2
6.	Introduction to network planning of projects – Development of network diagrams	2	Line diagram development (integral assignment) Results analysis – Moodle <i>Assignment 2 submission – Probability calculation</i>	2
7.	Time planning of project's activities – PERT		Practical assignment: PERT method application/calculation Results analysis - Moodle	2
	Colloquium I			
8.	Time planning of project's activities - CPM	2	Practical assignment: CPM method application/calculation Results analysis - Moodle	2
9.	Time planning of project's activities – Precedence	2	Practical assignment: Precedence method application/calculation Results analysis – Moodle <i>Assignment 3 submission – Network diagram</i>	2
10.	Cost estimation of project's activities – budgeting	2	Practical assignment: Project's costs analysis and estimation Results analysis – Moodle	2
11.	Estimation of needs for project's resources – Transplan, resource matrix, histogram	2	Practical assignment: Needs for project's resources analysis and estimation Results analysis – Moodle	2
12.	Project's time, costs and other resources optimization/ Project's cash flows planning	2	Practical assignment: Execution of project's resources optimization/ Project's cash flows analysis and planning Results analysis – Moodle	2
13.	Project's cash flows planning /Computer/software use for projects' planning	2	Network diagram development (integral assignment) Results analysis – Moodle	2

					Assignment 4 submission – Project's plan optimization	
		Colloquium II				
Format of instruction	<input checked="" type="checkbox"/> lectures <input type="checkbox"/> seminars and workshops <input checked="" type="checkbox"/> exercises <input type="checkbox"/> <i>on line</i> in entirety <input checked="" type="checkbox"/> partial e-learning <input type="checkbox"/> field work			<input checked="" type="checkbox"/> independent assignments <input checked="" type="checkbox"/> multimedia <input type="checkbox"/> laboratory <input type="checkbox"/> work with mentor <input type="checkbox"/> (other)		
Student responsibilities	In order to get a signature, student must attend regularly (minimum 50% of attendance at lectures and exercises) and participate actively in discussions, analysis and submit a min. 50% of practical assignments.					
Screening student work (name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)	Class attendance	1,5	Research		Practical training	1,5
	Experimental work		Report		(Other)	
	Essay		Seminar essay		(Other)	
	Test /Colloquiums	3	Oral exam		(Other)	
	Written exam		Project		(Other)	
Grading and evaluating student work in class and at the final exam	<p>Knowledge evaluation (learning outcomes) through:</p> <p>(1) 2 tests or alternatively through written and oral exam, and</p> <p>(2) individual and group work on resolving various problems/tasks during the semester or alternatively through written and oral exam.</p> <p>Course grade decomposition:</p> <ul style="list-style-type: none"> <li>○ individual and group work on resolving various problems/tasks in the domain of project's planning (min level 50%) =&gt; 15% of share in course grade</li> <li>○ 2 tests during the semester (min level 50%) =&gt; 85% of share in course grade</li> </ul> <p>Fulfilment of all obligations related to course and positively graded and evaluated student's work in class (practical assignments, colloquiums) results in student passing the course in exam pre period.</p> <p>Activities/work, which are not successfully carried-out aspects during the semester by student, are later subject of evaluation in regular exam periods.</p>					
Required literature (available in the library and via other media)	<b>Title</b>				<b>Number of copies in the library</b>	<b>Availability via other media</b>
	Radujković, M. i suradnici: <i>Planiranje i kontrola projekata</i> , Sveučilište u Zagrebu – Građevinski fakultet, Zagreb, 2012. (pages: 5-224; 273-388)				3	
	Authorized lectures and other teaching materials available on the Moodle course pages					
	Hartley, S. (2020). <i>Project Management: A practical guide to planning and managing projects</i> . Routledge, New York					
Optional literature (at the time of submission of study programme proposal)	Paul, V. K., & Basu, C. (2017). <i>A handbook for Construction Project Planning and Scheduling</i> . Copal Publishing Group, Lajpat Nagar					

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	<p>Dionne, R. (2018). <i>Project Planning for the Stage: Tools and Techniques for Managing Extraordinary Performances</i>, Southern Illinois University, Carbondale</p> <p>Lock, D. (2017). <i>The essentials of project management</i>. Routledge, New York</p> <p>Raju, I. B., &amp; Ganta, P. (2021). The impacts of Various Activity Distribution on Project Management in CPM and PERT Networks. <i>Solid State Technology</i>, 64(2), 6502-6513.</p> <p>Kholil, M., Alfa, B. N., &amp; Hariadi, M. (2018). Scheduling of house development projects with CPM and PERT method for time efficiency (Case study: House type 36). In <i>IOP Conference Series: Earth and Environmental Science</i> (Vol. 140, No. 1, p. 012010). IOP Publishing.</p> <p>Cynthia, O. U. (2020). Implementation of Project Evaluation and Review Technique (PERT) and Critical Path Method (CPM): A Comparative Study. <i>Int J Ind Operations Res</i>, 3(004).</p> <p>Romadhona, S., Kurniawan, F., &amp; Tistogondo, J. (2021). Project Scheduling Analysis Using the Precedence Diagram Method (PDM) Case Study: Surabaya's City Outer East Ring Road Construction Project (Segment 1). <i>International Journal of Engineering, Science and Information Technology</i>, 1(2), 53-61.</p>
<p>Quality assurance methods that ensure the acquisition of exit competences</p>	<ul style="list-style-type: none"> <li>• Screening students' class attendance and successfulness of carrying-out other obligations (teacher)</li> <li>• Monitoring of class execution (vice-dean for education)</li> <li>• Analysis of studying successfulness according to all program's courses (vice-dean for education)</li> <li>• Students survey on quality of teacher and classes for every course in the program (UNIST, Centre for quality improvement)</li> <li>• Through exam, which teacher carries-out, all courses' learning outcomes are evaluated. Periodically the content of the exam is evaluated, according to which the appropriateness of the manner of evaluation of learning outcomes is being determined (vice-dean for education)</li> </ul>
<p>Other (as the proposer wishes to add)</p>	